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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,893	04/27/2005	Katsuhiko Kimura	5404/100	2003
28455	7590	01/04/2006	EXAMINER	
WRIGLEY & DREYFUS 28455 BRINKS HOFER GILSON & LIONE P.O. BOX 10395 CHICAGO, IL 60610			ASINOVSKY, OLGA	
			ART UNIT	PAPER NUMBER
			1711	

DATE MAILED: 01/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/532,893

Applicant(s)

KIMURA ET AL.

Examiner

Olga Asinovsky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>04/27/2005</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is not clear difference between "at least one kind selected from the group consisting of an aromatic vinyl-containing thermoplastic elastomer and an olefinic resin" as a part of (A) component and claimed component (B) having the same "at least one kind selected from the group consisting of an aromatic vinyl-containing thermoplastic elastomer and an olefinic resin." Therefore, a thermoplastic elastomer composition is indefinite.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiirio et al U.S. Patent 6,218,475.

Hiirio discloses a thermoplastic elastomer composition comprising an isobutylene block copolymer having alkenyl terminal group such as allyl group, col. 1, lines 58-61. Hiirio discloses an unsaturated bond-containing isobutylene polymer (A) wherein said

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isobutylene polymer is crosslinked with a crosslinking agent such as a highly reactive silicon group containing compound, columns 8, 12-13. The silicon-group containing crosslinking compound having alkoxy group or a carboxyl group, or an ester group, column 8, lines 15-33, is readable for effective a hydrosilylation reaction for the present claim 1, column 13, lines 17-34 and example 3 at column 14, line 51. The isobutylene block copolymer contains an alkenyl-group-containing isobutylene group block (a) and a polymer block (b) derived from other polymerizable monomer(s) including aliphatic olefins, aromatic vinyl compounds, dienes, vinyl ethers and other monomers, column 1, lines 63-67, column 2, line 1 and column 3, lines 54-67 through column 5 and column 7, lines 53-67. The polymer block derived from (b) monomers is readable for being a part of (A) for being "at least one kind selected from the group consisting of an aromatic vinyl-containing thermoplastic elastomer and an olefin resin" in the present claim 1. The crosslinking agent is added at a stage where the polymer (A) is substantially completed, column 10, lines 64-67, for the present claim 1. The alkenyl-group containing isobutylene group block copolymer can be blended with other resin, column 11, lines 64-65. The other resins are readable for being a thermoplastic elastomer or an olefinic resin (B) in the present claims, since any elastomer, olefinic resin and an additive such as a plasticizer can be included depending on the utility of using the resulting crosslinked isobutylene block copolymer, column 11, lines 51-60.

The difference between the present claims and Hiroy is the requirement in the present claims that a component (A) is an isobutylene polymer having an alkenyl group at the molecular ends and said isobutylene polymer is melt-kneading in the presence of "at

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least one kind selected from the group consisting of an aromatic vinyl-containing thermoplastic elastomer and an olefinic resin.” Hiiro discloses an alkenyl-group-containing isobutylene group block copolymer. It would have been obvious to one of ordinary skill in the art to consider that an isobutylene group block copolymer in Hiiro is within the scope of a component (A) in the present claims because a polymer block (b) in Hiiro can be produced in a separate stage and the polymerization procedure is not critical in Hiiro invention, column 9, lines 22-34. It would have been obvious to one of ordinary skill in the art to consider that a polymer block (b) in Hiiro can be produced in a separate stage, and than an alkenyl terminated isobutylene block (a) is melt-kneaded with a polymer block (b) for producing a component (A) because a process for producing an isobutylene block copolymer in Hiiro invention can be modified and the polymerization procedure is not critical in Hiiro invention.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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6. Claims 1-18 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0844 257 or JP 262788/1996 (application), now patent JP10-101869, October 1998. EP 0 844 257 (now EP'257) discloses a curable composition comprising an isobutylene polymer (A) having at least one alkenyl group capable of hydrosilylation reaction with a curing agent such as organohydrogen polysiloxane (B), an organic component (D) that is a hydrocarbon compound having substantially no carbon-carbon unsaturated bond, page 5, lines 40-45; and a plasticizer. Based on the mechanical property the addition level of the component (D) can be expected, page 5, lines 55-56. The component (D) can be alpha-olefin, styrene or the like, but it is not limited, page 5, line 46-49. Component (D) can be readable for being a part (A) and/or (B) in the present claims.

JP'262788/1996 (now JP'788) discloses a thermoplastic resin composition comprising a thermoplastic resin such as olefin resin (claim 18), a composite rubber comprising an isobutylene polymer having allyl group at the end of said isobutylene polymer, page 28, example 1; and a crosslinking compound such as a silicon-containing compound being responsible for hydrosilylation reaction, page 15. The thermoplastic resin composition can include a plasticizer, page 24. The thermoplastic resin composition can be prepared by mixing the ingredients in the extruder, page 25. The thermoplastic elastomer composition in JP'788 is readable in applicants claims.

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Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. References have been considered. EP 1 408 076 (now EP'076) belongs to the patent family of WO 2003002654 (there is no translation) and US 20040171750. EP'076 discloses all components for producing a thermoplastic elastomer composition and a process for making said composition. However, Ep'076 is not available reference.

7.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olga Asinovsky whose telephone number is 571-272-1066. The examiner can normally be reached on 9:00 to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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